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SOUTHERN FIELD-CROP INSECT INVESTIGATIONS

J. L. Webb, Entomologist Acting in Charge

Dr. W. D. Hunter, B. R. Coad, and R. C. Gaines spent several days in Washington during the month. Mr. Coad also made a trip to New York for a conference with calcium arsenate manufacturers.

Col. Clarence Ousely, formerly Assistant Secretary of Agriculture, has been engaged by the New Orleans Boll Weevil Control Association as Secretary and Manager of Activities.

The Tobacco Insect Laboratory, Clarksville, Tenn., under the direction of A. C. Morgan, has submitted manuscripts for two new bulletins, entitled, "Control of the Tobacco Flea-Beetle in the Dark Fire-Cured Tobacco Districts of Kentucky and Tennessee," by A. C. Morgan and J. U. Gilmore, and "The Green June Beetle Larvae in Tobacco Plant Beds," by K. B. McKinney and Joe Milam.

S. E. Crumb, of the Clarksville, Tenn., laboratory, has also submitted a short paper, entitled, "Odors Attractive to Ovipositing Mosquitoes," for publication in Entomological News.

T. C. Barber, of the Sugar-Cane Insect Substation at Brownsville, Tex., has submitted a manuscript entitled "Preliminary Observations on an Insect of the Cotton Stainer Group New to the United States," for publication in the Journal of Economic Entomology.

The Extension Service has recently released a motion picture film entitled "Fighting Insects with Airplanes." This is an excellent picture, showing the operations of the airplanes in distributing poison dusts in the recent experiments in Louisiana for control of the cotton boll weevil and malaria mosquitoes.

N. E. Winters, in charge of the cooperative boll weevil investigations of this Bureau and the South Carolina Agricultural Experiment Station, at Florence, S. C., has resigned, effective January 31, 1924, to accept a position in Argentina.

T. E. Holloway, W. E. Haley, and J. W. Ingram attended the meeting in Birmingham, Ala., on January 10 and 11 of the Cotton States Entomologists. Mr. Ingram then came to Washington, remaining for the rest of the month for library work and conference with Department officials.

Prof. Herbert Osborn, of the Ohio State University, visited the Sugar-Cane Insect Laboratory at New Orleans and took part in a conference on the control of the sugar-cane moth borer. Others at the conference were W. G. Taggart, director of the Sugar Experiment Station, Ed. Foster of the Nursery Inspection Service, W. G. Bradley, entomologist of the Louisiana stations, and T. E. Holloway and W. E. Haley of this Bureau.

T. E. Holloway and W. E. Haley have been cooperating with L. L. Janes of the Bureau of Agricultural Economics in estimating the loss of sugar cane in Louisiana due to the sugar-cane moth borer. Two estimates obtained independently were found to agree in a rather remarkable manner, and it is indicated that the average loss is about one-fifth of the sugar crop.

Another visitor to the Sugar-Cane Insect Laboratory was Prof. Neguib Iskander, Assistant Entomologist of the Ministry of Agriculture of Egypt.

CEREAL AND FORAGE INSECT INVESTIGATIONS

G. A. Dean, Entomologist in Charge

P. R. Myers and C. C. Hill, of the Carlisle, Pa., laboratory of Cereal and Forage Insect Investigations, visited Washington January 7 to 11 to look up references pertaining to manuscripts they are preparing for publication.

Stewart Lockwood, in charge of the Billings, Mont., laboratory of Cereal and Forage Insect Investigations, visited Washington January 4 to 12 for consultation on several subjects pertaining to his work in the Northwest. He was very much interested in the new motion picture film relating to grasshopper control in the Northwest, which will be ready for distribution in a short time. It is expected that this film will be used extensively in the grasshopper control campaigns.

W. J. Phillips, in charge of the Charlottesville, Va., laboratory of Cereal and Forage Insect Investigations, visited Washington January 21 for consultation regarding the insect problems of the Southeastern States.

Prof. Geo. A. Dean is to attend the meetings and take part on the program of the Farm and Home Week of the Ohio State University February 4 to 8. He will also give an address at the meeting of the entomologists of Ohio, which will be held at the Ohio State University February 8.

The following members of the division of Cereal and Forage Insect Investigations attended the meetings of the American Association for the Advancement of Science at Cincinnati: J. S. Wade, D. J. Caffrey, K. W. Babcock, L. H. Worthley, E. G. Brewer, L. H. Patch, F. W. Poos, W. H. Larrimer, G. G. Ainslie, W. B. Cartwright, W. B. Noble, H. R. Painter, A. F. Satterthwait, R. C. Blanchard, S. Lockwood, H. E. Roberts, and Geo. A. Dean.

The following men of the division of Cereal and Forage Insect Investigations are taking graduate work: W. H. Larrimer at Ohio State University, G. W. Barber at Harvard University, H. L. Sweetman at Iowa State University, E. J. Udine at Montana State College. The following are planning to take work: W. J. Phillips at the University of Virginia, D. W. Jones and K. W. Babcock at Harvard University, F. W. Poos at Ohio State University, L. H. Patch at Massachusetts Agricultural College, and C. M. Packard at the University of California.

Galley proofs of the following papers were read recently: "Introduction of Parasites of the Alfalfa Weevil into the United States," by T. R. Chamberlin. "The Biology of the False Wireworm, Eleodes suturalis Say," by J. S. Wade and R. L. St. George. "The European Corn Borer versus the Corn Earworm," by G. W. Barber.

The manuscript for a professional paper on the clover root-borer by L. P. Rockwood recently was submitted for publication through Bureau channels.

TRUCK-CROP INSECT INVESTIGATIONS

J. E. Graf, Entomologist Acting in Charge

C. F. Stahl, Assistant Entomologist, Riverside, Calif., visited Washington for conference on the sugar-beet leafhopper situation, after attending the Cincinnati meetings of the American Association for the Advancement of Science. He has since returned to Riverside, Calif.

J. E. Graf visited Birmingham, Ala., to attend the meetings of the Cotton States Entomologists. While there he conferred with Bureau and State entomologists regarding truck-crop matters.

W. A. Thomas, Scientific Assistant, Chadbourn, N. C., visited Birmingham, Ala., and presented a very interesting paper on the mole cricket before the Cotton States Entomologists.

B. L. Boyden, Entomologist, Tampa, Fla., and K. L. Cockerham, Entomologist, Biloxi, Miss., visited Birmingham, Ala., the early part of January for conference with Bureau and State officials.

C. H. Popenoe, Entomologist, Sligo, Md., visited Buffalo, N. Y., January 21 to 26, as a representative of the Bureau of Entomology, and had charge of the Bureau's exhibit at the National Canners Association Convention.

J. E. Dudley, Jr., Entomologist, Madison, Wis., visited the National Canners Association Convention at Buffalo, N. Y., the latter part of January and presented a paper on the control of the pea aphis.

K. L. Cockerham, C. E. Smith, and M. M. High have reported that the recent cold snap in the Gulf Coast regions, in addition to causing serious damage to many of the truck crops, has caused a high mortality among some of the semitropical forms of truck-crop insects, such as the belted cucumber beetle (Diabrotica balteata), the Australian tomato weevil (Desiantha nociva), and the sweet-potato weevil (Cylas formicarius).

E. Graywood Smyth, formerly Special Field Agent, has been appointed Collaborator in order that he may complete his notes of his recent expedition to Mexico in search for parasites of the Mexican bean beetle.

T. H. Jones, for many years Collaborator with this branch, has had his appointment terminated. Mr. Jones is now connected with the Gipsy Moth Investigations of the Bureau.

N. F. Howard, in charge of the Birmingham laboratory, Mexican bean beetle investigations, presented a paper on the bean beetle before the meeting of the Cotton States Entomologists. On the last day of this meeting many of the visiting entomologists visited the laboratory.

R. E. Campbell, Entomologist, Alhambra, Calif., advises as follows regarding the discovery of the pepper weevil, Anthonomus eugenii Cano, in California.

On November 20, 1923, several fields of Chinese Giant bell peppers near La Habra, Calif., were found to be badly infested with the pepper weevil. In one field practically all of the peppers were so badly damaged that the amount marketable would not even pay for the cost of the seed. In other fields, planted earlier, and which made a vigorous growth, a little more than half the crop was picked before it was damaged. In this district alone the loss was estimated to be in excess of $12,000.

Later an examination of pepper fields in the San Fernando Valley showed the presence of the weevils, but in not more than 10 per cent of the pods.

An infestation was also reported from eastern Orange County, in an isolated field where peppers had been grown previously, but on a very small scale. This field was about 30 miles southeast of the La Habra infestation, while those in the San Fernando Valley were about 50 miles northeast.

Growers report similar damage in previous years, but so insignificant that the cause was not investigated. The only other records of this insect in the United States are from Texas and New Mexico.

FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, Entomologist in Charge

E. A. McGregor, who was connected with the Bureau for a number of years, has been reappointed and assigned to duty at Lindsay, Calif., where he will continue the field operations under way against the citrus thrips, work which was formerly conducted by A. J. Flebut, who recently resigned from the service.

H. A. Jaynes and T. R. Gardner, who have been attached to the Japanese Beetle Laboratory at Riverton, N. J., will soon sail for Japan with C. P. Clausen. These men will be associated with Mr. Clausen in connection with the Bureau's search for parasites of the Japanese beetle.

F. J. Brinley, who has been connected with the Japanese Beetle Laboratory at Riverton, N. J., has been temporarily assigned to the Edgewood, Md., arsenal of the Chemical Warfare Service, War Department, for the purpose of undertaking cooperative studies of different war gases to determine their value in insect control.

BEE CULTURE INVESTIGATIONS

E. F. Phillips, Apiculturist in Charge

Dr. E. F. Phillips attended the annual meeting of the American Honey Producers' League at Chicago January 25 and 26.

J. I. Hambleton was one of the speakers at the meeting of the Pennsylvania State Beekeepers' Association at Harrisburg January 24 and 25.

E. L. Sechrist will attend a series of beekeepers' meetings in Tennessee, Arkansas, Kansas, and Missouri during the first two weeks in February.

FOREST INSECT INVESTIGATIONS

F. C. Craighead, Entomologist in Charge

J. C. Evenden attended the Western Forestry and Conservation Association meetings at Seattle, Wash., December 13 and 14. Considerable interest was shown in forest insect control, particularly in the large Southern Oregon-Northern California Insect Control Project.

This division has continued to receive many letters concerning the southern pine beetle outbreak, which appears to be very widespread, covering the entire range of the southern pine from eastern Texas north to Virginia. The heaviest concentration appears to be in the Piedmont region. Recent meetings of logging and lumbering associations in the South have devoted considerable time to the discussion of this insect.

A cooperative agreement has just been completed by the Minnesota Agricultural Experiment Station, the Lake States Forest Experiment Station, and the division of Forest Insect Investigations. Dr. S. A. Graham, Assistant Professor in Forestry, will be in charge of forest insect investigations in

that region. The more important problems demanding immediate attention are the spruce budworm, larch sawfly, and certain problems in forest products. Doctor Graham expects to be in Washington some time next month to confer with officers of the division and organize a plan of studies for the coming year.

R. A. St. George supervised additional steaming tests at the Naval Aircraft Factory the first part of January, to determine fatal temperatures for Lyctus powder-post beetles in lumber.

On the Pacific Coast utilizers of California electric light poles are finding it necessary to impregnate the entire pole with creosote in order to prevent serious damage by termites (Kalotermes sp.) to the tops and cross arms. A letter dated January 3, 1924, shows that the recommendations of the Bureau of Entomology are being adopted:

"Might state that we are going to try out Douglas fir poles treated with the pressure creosote process, and we are placing an order for 1,000 of these poles treated with the empty cell process. We find that these poles can be furnished through companies having pressure treating plants at Portland, and if they prove satisfactory we would later put in our own pressure treating plant."

Doctor Snyder has prepared a short article for the Overhead Section of the National Electric Light Association, in which he has recommended impregnating the entire pole with coal-tar creosote.

Dr. T. E. Snyder left Washington on January 24 for Ancon, C. Z., Panama, where tests are to be continued with wood preservatives to protect timber from attack by wood-boring insects, especially termites. By means of an agreement with Doctor Quaintance, Doctor Snyder will be greatly aided in this work through cooperation with J. Zetek.

H. B. Pierson has recently been appointed Entomologist in the Forest Service, under the technical direction of the division of Forest Insect Investigations, utilizing cooperative funds supplied by Maine timberland owners. For several years Mr. Pierson has been serving as State Forest Entomologist in Maine under the direction of the State Forest Service, supported by the timberland owners. The present arrangement will make it possible for him to maintain closer relations with the Northeastern Forest Service Experiment Station and represent the Bureau of Entomology in cooperative work at that station.

MISCELLANEOUS INVESTIGATIONS

(Items from the National Museum contributed by S. A. Rohwer)

Dr. William M. Mann recently returned from a trip to Mexico, where he has been investigating the fruit fly. It was expected that Doctor Mann would

continue his trip into Central America and northern South America, but owing to the revolution he was unable to continue his journey southward and had to return to the United States. He leaves February 6 for Santa Marta, Colombia, and from there will visit Panama and certain of the Central American states.

Messrs. Jaynes and Gardner of the Japanese Beetle Laboratory, Riverton, N. J., spent some time in the Museum studying the collections of Scolia and Tiphia. These men expect to go to Japan next month to carry on the studies of the introduction of parasites against the Japanese beetle.

R. E. Tarbett, Sanitary Inspector of Southern Texas, spent a short time at the Section of Insects consulting with Doctor Dyar and studying mosquitoes.

A. E. Miller, of the Ohio Agricultural Experiment Station, is spending several weeks in the Section of Insects working with Doctor Ewing on mites. Mr. Miller is preparing a thesis to be submitted for the degree of Doctor of Philosophy in Ohio State University, and is making use of the material in the collection and obtaining records to assist him in identifying material he has already collected.

Dr. Andrew Balfour, formerly Director of the Wellcome Research Laboratory, Khartum, Anglo-Egyptian Sudan, who worked for many years on medical entomology, especially sleeping sickness, and Col. F. F. Russell, General Director of the International Health Board of the Rockefeller Foundation, New York, visited the Museum recently. Doctor Howard brought them over to look at the collections.

M. C. Van Duzee, of Buffalo, N. Y., spent four days in the Section of Insects working with Doctor Aldrich on Diptera. Mr. Van Duzee is preparing another paper on certain flies of the family Dolichopodidae.

Prof. J. B. Parker, of the Catholic University, is continuing his study on wasps of the family Bembecidae. He has been spending one day a week working on the material in the collection and is planning to publish a generic revision and descriptions of new species.

PHOTOGRAPHIC LABORATORY

J. G. Pratt, Scientific Photographer

Those interested in photographing insects will probably find helpful an article in the February number of "Nature Magazine" in which Mr. Pratt tells of the different methods used in preparing various kinds of insects for the camera.

LIBRARY

Mabel Colcord, Librarian

New Books

Betts, Annie D.
Practical bee anatomy with notes on the embryology, metamorphoses and physiology of the honey bee. Benson, Oxon, England, published by the Apis club, 1923. 88 p. Bibliography, p. 66-68.

Bogdanov-Katkov, N. N.
The cabbage louse and measures for destroying it. Text in Russian. Moscow, 1922. 20 p., illus., col. pl.

Borner, Carl.
Insekten-zeitschlüssel. Beiträge zur Kenntnis vom Massenwechsel (Gradation) schädlicher Insekten. (Arbeiten aus der Biologischen Reichsanstalt für Land- und Forstwirtschaft, Bd. 10, Hft. 5, p. 395-466, Berlin, 1921.)

Buxton, P. A.
Animal life in deserts: A study of the fauna in relation to the environment. London, Edward Arnold & Co., 1923. 176 p., illus., pl.

Cockerham, K. L.
A manual for spraying. New York, Macmillan Company, 1923. 87 p., illus.

Faune de la Russie et des pays limotrophes, fondée principalement sur les collections du Musée zoologique de l'Académie des sciences de Russie. Petrograd. Contents: Arachnides (Arachnoidea), v. 1, livr. 1, 224 p. 3 pl., 1917, by A. A. Biatynick-Birula. Insectes hémiptères (Insecta Hemiptera), v. 6, livr. 2, 395 p., 3 pl., 1916, by A. N. Kiritshenko. Insectes lépidoptères (Insecta Lepidoptera), v. 1, livr. 1, cccxxxvi p., illus., 1915, by N. J. Kusnezov. Insectes pseudoneuroptères (Insecta Pseudoneuroptera), v. 1, livr. 1-2, 1915-1919, by A. N. Bartenef.

Glaser, R. W.
The effect of food on longevity and reproduction in flies. In Jour. Exper. Zool., v. 38, p. 383-412, Nov., 1923. Bibliography, p. 411-412.

Great Britain-Admiralty.
Hygiene and disease in eastern tropical Africa. The protection of aircraft from the attacks of insects. Issued as a supplement to the Handbook of German East Africa. London, published by his Majesty's Stationery Office, 1923. 58 p., illus., plates, map.

Hanstein, Reinhold von.
Die Insekten sowie die übrigen Gliederfüsser mit Ausnahme der Käfer und Schmetterlinge. 2. aufl. Wiesbaden, Pestalozzi, 1923. 188 p., illus., xx col. pl. (Das Naturreich ... hrsg. von Bastian Schmidt.)

Will, J.
Die wichtigsten Forst-insekten. 2. aufl. Von Prof. Dr. Max Wolf und Dr. Anton Krausse. Neudamm, Verlag von J. Neumann, 1922. 216 p., illus.

Stekhoven, J. H. Schuurmans jr.
Zur Biologie der Kratzmilben...unter Mitwirkung von Roden Mas Notokworo. Amsterdam, Johannes Muller, April, 1921. 152 p., illus., 19 pl. (Verhandling der Koninklijke Akademie van Wetenschappen te Amsterdam, sec. 2, v. 21, no. 2.) Literaturverzeichnis, p. 147-149.